

Recovery Plan Action Status

Plan Name: South Florida Multi-Species Recovery Plan (68 spp.)

Plan Status: Final

Plan Date: 18-May-99

Lead Agency: USFWS

Lead Office: South Florida Ecological Services Field Office

(772)
562-3909)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h1.1.1	Continue Federal acquisition efforts.	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service	Work type not yet selected	Labor type not yet selected	Cost dependent upon specific site and amount of land acquired. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h1.1.2	Support State, local and non-governmental organizations acquisition efforts.	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, South Florida counties	Work type not yet selected	Labor type not yet selected	Cost dependent upon specific site and amount of land acquired. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	2	ssbu-h1.2.1	Protect butterflies on private lands.	Not Started			U.S. Fish and Wildlife Service, Private industry, landowners, etc.	Work type not yet selected	Labor type not yet selected	Cost dependent upon type of protection provided. Action lead(s): private
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	2	ssbu-h1.2.2	Protect butterflies on public lands.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, South Florida counties	Work type not yet selected	Labor type not yet selected	Cost dependent upon type of protection provided. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	2	ssbu-h1.2.3	Utilize Federal mechanisms to protect and prevent degradation of Schaus swallowtail butterfly habitat.	Ongoing Current	FY 1995 - FY 1999		U.S. Bureau of Land Management, U.S. Department of Agriculture, U.S. Geological Survey, Biological Resources Division, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, Natural Resources Conservation Service, United States Coast Guard, U.S. Air Force	Work type not yet selected	Labor type not yet selected	Cost included in standard operating procedures of Federal agency's budget. Action lead(s): All Federal agencies

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Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h1.2.4	Coordinate with State and Monroe County agencies and private entities to develop management actions to protect Schaus swallowtail butterfly habitat.	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Florida Fish and Wildlife Conservation Commission, South Florida counties	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	2	ssbu-h1.2.5	Avoid clearing or disturbing hammocks.	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, South Florida counties	Work type not yet selected	Labor type not yet selected	Task currently implemented on public lands and cost is included in responsible agency's budget. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h1.2.6	Restrict access to Schaus swallowtail butterfly habitat.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection	Work type not yet selected	Labor type not yet selected	Task currently conducted and cost is included in responsible agency's budget. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h1.2.7	Establish and protect 500 m buffers around priority habitat.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection	Work type not yet selected	Labor type not yet selected	Cost dependent upon type of protection provided. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h1.2.8	Prevent fires.	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Florida Division of Forestry	Work type not yet selected	Labor type not yet selected	Task currently implemented on public lands and cost is included in responsible agency's budget. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h1.2.9	Eliminate exotic vegetation.	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection	Work type not yet selected	Labor type not yet selected	Cost is per acre (ex. 3.0/acre); Total cost dependent upon number of acres infested with exotics. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h2.1	Restore Schaus swallowtail butterfly habitat.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection	Work type not yet selected	Labor type not yet selected	Cost is per acre (ex. 1.0/acre); Total cost dependent upon number of acres restored. Action lead(s): FWS

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Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h2.2	Improve habitat by planting or encouraging native plant species.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Private industry, landowners, etc., Public and private universities	Work type not yet selected	Labor type not yet selected	Cost is per acre (ex. 0.5/acre); Total cost dependent upon number of acres improved. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h2.3	Improve habitat by conducting selective trimming.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection	Work type not yet selected	Labor type not yet selected	Cost is per acre (ex. 0.5/acre); Total cost dependent upon number of acres improved. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h2.4	Remove exotic vegetation.	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, South Florida counties	Work type not yet selected	Labor type not yet selected	Cost is per acre (ex. 3.0/acre); Total cost dependent upon number of acres infested with exotics. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h2.5	Remove trash debris.	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, South Florida counties, Private industry, landowners, etc.	Work type not yet selected	Labor type not yet selected	Task currently implemented on public lands and cost is included in responsible agency's budget. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h3.1.1	Determine minimum area requirements.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h3.1.2	Identify host plants, their status and role in the hammock community, effects from natural factors, and how the Schaus swallowtail butterfly is dependent on them.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h3.1.3	Determine the effects of forest canopy structure and light conditions on the Schaus swallowtail butterfly.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities

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Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h3.1.4	Investigate the effect of habitat change.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h3.2.1	Investigate flight patterns and the spatial utilization of habitat to identify important core areas and corridors.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h3.2.2	Determine if the amount and configuration of habitat is sufficient to support a stable or increasing population of Schaus swallowtail butterflies..	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h4.1	Conduct long-term monitoring of habitat patches.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, South Florida counties	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h4.2	Monitor primary and edge forest habitat.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, South Florida counties	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h4.3	Monitor ongoing and proposed habitat restoration efforts.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, South Florida counties	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-h5.0	Increase public awareness of Schaus swallowtail butterfly habitat and instill stewardship.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Non-governmental organizations	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	2	ssbu-s1.1	Determine the status of wild butterflies within current range.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS

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Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s1.2	Determine the status of captive-reared Schaus swallowtail butterflies.	Discontinued	FY 2006		U.S. Fish and Wildlife Service, Private industry, landowners, etc., Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s1.3.1	Survey butterflies along ecotonal regions.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s1.3.2	Survey the amount of light or closed canopy and its effects on species numbers, etc.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s1.3.3	Determine species composition and abundance between different stands of forest.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s1.3.4	Survey hammock microclimate during breeding and flight time.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s1.3.5	Survey the distribution of adult butterflies and the distribution of host plants.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s1.4	Determine the status of habitat at release sites.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s1.5	Survey other butterfly populations in occupied Schaus swallowtail butterfly habitat.	Not Started			U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation Commission, Non-governmental organizations	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s1.6	Maintain and improve the GIS database for butterflies information.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS

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Schaus swallowtail butterfly (Heraclides aristodemus ponceanus)	3	ssbu-s1.7	Conduct presence/absence surveys for Schaus swallowtail butterflies in suitable habitat throughout the Florida Keys.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation Commission, Non-governmental organizations	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heraclides aristodemus ponceanus)	3	ssbu-s2.1	Assign a biologist responsibility for implementing recovery actions for the threatened or endangered species of the upper Florida Keys and Miami-Dade County (Deering Estate and Biscayne National Park).	Ongoing Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service	Work type not yet selected	Labor type not yet selected	FWS biologist assigned to South Florida Ecological Services Office and stationed at Big Pine Key. Action lead(s): FWS
Schaus swallowtail butterfly (Heraclides aristodemus ponceanus)	2	ssbu-s2.2	Utilize Federal regulatory mechanisms for protection.	Ongoing Current	FY 1995 - FY 1999		U.S. Bureau of Land Management, U.S. Department of Agriculture, U.S. Geological Survey, Biological Resources Division, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, Natural Resources Conservation Service, United States Coast Guard, U.S. Air Force	Work type not yet selected	Labor type not yet selected	Cost included in standard operating procedures of Federal agency's budget. Action lead(s): All Federal agencies
Schaus swallowtail butterfly (Heraclides aristodemus ponceanus)	3	ssbu-s2.3	Provide Schaus swallowtail butterfly information to the Federal, State, county, and city agencies.	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Non-governmental organizations	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heraclides aristodemus ponceanus)	3	ssbu-s2.4.1	Eliminate the negative effects of pesticides and other biocides.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, South Florida counties	Work type not yet selected	Labor type not yet selected	Pesticide use prohibited through significant portions of this species range. Action lead(s): FWS

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Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	2	ssbu-s2.4.2	Reduce the effects of habitat loss, destruction, and modifications on Schaus swallowtail butterflies in the Florida Keys.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, South Florida counties	Work type not yet selected	Labor type not yet selected	Cost dependent upon type of protection provided. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	2	ssbu-s2.4.3	Eliminate illegal collecting of the Schaus swallowtail butterfly.	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Florida Fish and Wildlife Conservation Commission	Work type not yet selected	Labor type not yet selected	Task currently conducted and cost is included in responsible agency's budget. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s2.4.4	Minimize the effects of contaminants on the Schaus swallowtail butterfly.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, South Florida counties	Work type not yet selected	Labor type not yet selected	Spraying prohibited in range of ssbu on public lands. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s2.5.1	Develop criteria for captive propagation protocol.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s2.5.2	Develop threshold criteria to act as a trigger for future captive propagations.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s2.5.3	All future efforts to captively breed Schaus swallowtail butterflies should be conducted in situ in as natural conditions as possible.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Cost applicable only to those years captive propagation is conducted. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s2.5.4	Conduct appropriate health screenings of all release stock prior to reintroduction.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Cost applicable only to those years health screenings are needed. Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s2.5.5	Monitor introduced populations to determine survival, growth, and reproductive success.	Discontinued	FY 2006		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities

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Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s3.1	Determine if the total population size is large enough to prevent functional extinction and genetic extinction.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	2	ssbu-s3.2.1	Determine subpopulations vulnerable to extinction.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s3.2.2	Determine the necessary number of subpopulations and level of exchange that will enable Schaus swallowtail butterfly to persist for 100 years.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s3.3	Examine factors that affect the abundance and distribution of the Schaus swallowtail butterfly.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s3.4	Evaluate the effect of releasing captive-bred butterflies into the wild for the persistence of the Schaus swallowtail butterfly.	Not Started			U.S. Fish and Wildlife Service, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s3.5	Investigate the effects of insecticides used for mosquito control on surrogate species closely related to the Schaus swallowtail butterfly.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, South Florida counties	Work type not yet selected	Labor type not yet selected	Sufficient information is available to show that pesticides should not be used in areas occupied by ssbu. Action lead(s): FWS, universities
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s4.1	Monitor demographic parameters.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, South Florida counties	Work type not yet selected	Labor type not yet selected	Action lead(s): universities

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Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	2	ssbu-s4.2	Continue long-term monitoring of the Schaus swallowtail butterfly.	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Public and private universities	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS
Schaus swallowtail butterfly (Heracles aristodemus ponceanus)	3	ssbu-s5.1	Increase public awareness and stewardship.	Not Started			U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Non-governmental organizations	Work type not yet selected	Labor type not yet selected	Action lead(s): FWS